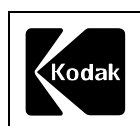


**INSTALLATION INSTRUCTIONS**  
**for the**  
**DIAGNOSTICS DISK**  
**on the**  
***Kodak X-Omat 180 LP and LPS PROCESSORS***  
**Service Codes: 3227, 3198**  
***Kodak X-Omat 3000 RA INTEGRATED PROCESSORS***  
**Service Codes: 3488, 3466**  
**with the**  
**5000 BOARD**



**Important**

Qualified service personnel must install this equipment.



**PLEASE NOTE** The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

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This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

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## Requirements for Installing the DIAGNOSTICS DISK



### Caution

Do not install the DIAGNOSTICS DISK on other PROCESSORS. These PROCESSORS have internal diagnostics. Installation of the DIAGNOSTICS DISK can do damage to:

- RAM in the CLOCK MEMORY MODULE on the 5000 BOARD
- PROCESSOR

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## Special Tools

To install the DIAGNOSTICS DISK, you need:

- INTERFACE CABLE TL-4391
- IBM compatible LAPTOP COMPUTER with:
  - MS-DOS Version 3.0 or higher installed on the HARD DRIVE
  - 720 KB 3 1/2 in. DISK DRIVE
  - SERIAL COMMUNICATION PORT configured as COM 1 - See the User Manual for the LAPTOP COMPUTER.

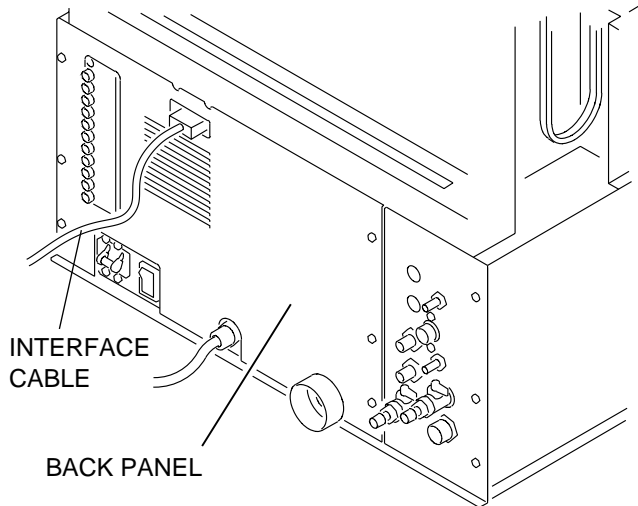
## Connecting the INTERFACE CABLE on a 3000 RA INTEGRATED PROCESSOR



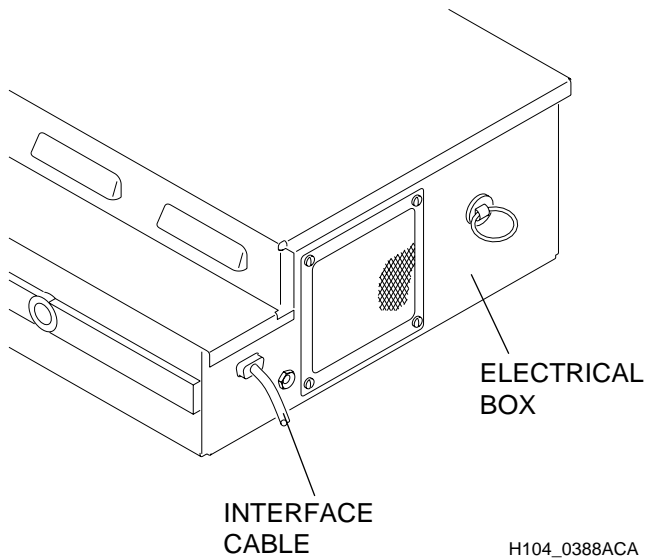
### Warning

Dangerous Voltage

- [1] De-energize and disconnect the PROCESSOR.
- [2] Connect the INTERFACE CABLE to either:
  - BACK PANEL of the MULTILoader 300 PLUS or the MULTILoader 7000
  - ELECTRICAL BOX
- [3] Connect the INTERFACE CABLE to the LAPTOP COMPUTER.



H104\_0391ACB  
H104\_0391AC



H104\_0388ACA  
H104\_0388AA

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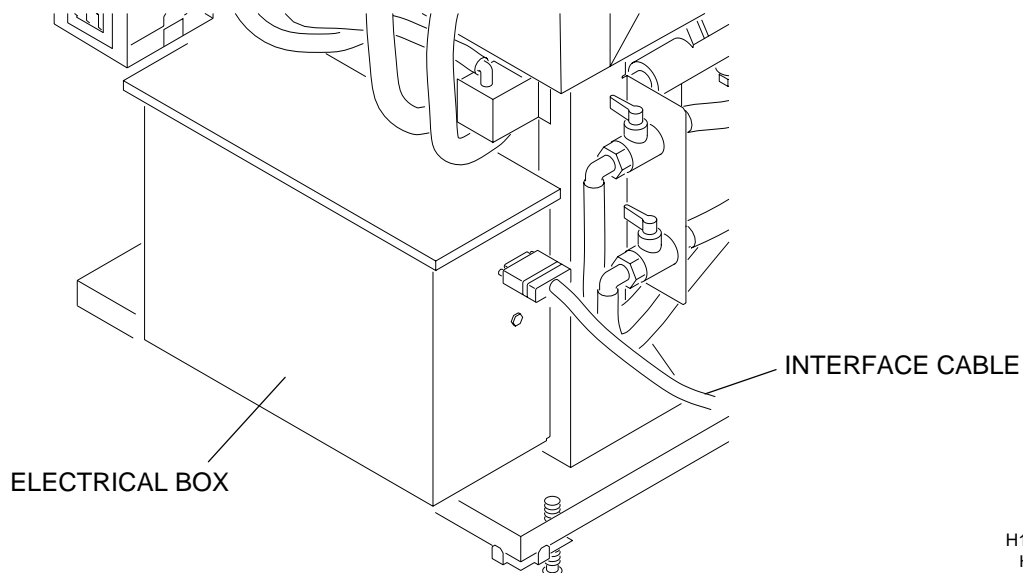
## Connecting the INTERFACE CABLE on a 180 LP or 180 PROCESSOR



### Warning

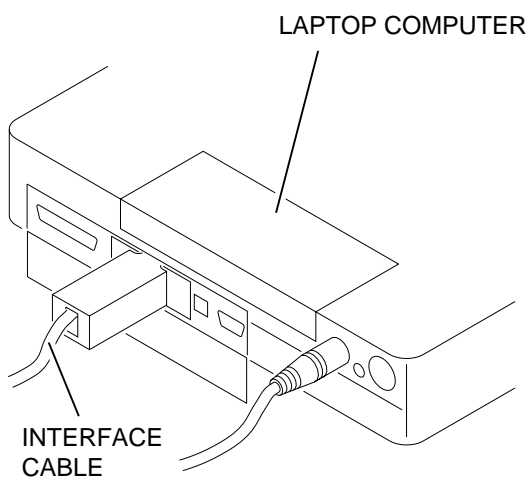
Dangerous Voltage

- [1] De-energize and disconnect the PROCESSOR.



- [2] Connect the INTERFACE CABLE to the ELECTRICAL BOX.

- [3] Connect the INTERFACE CABLE to the LAPTOP COMPUTER.



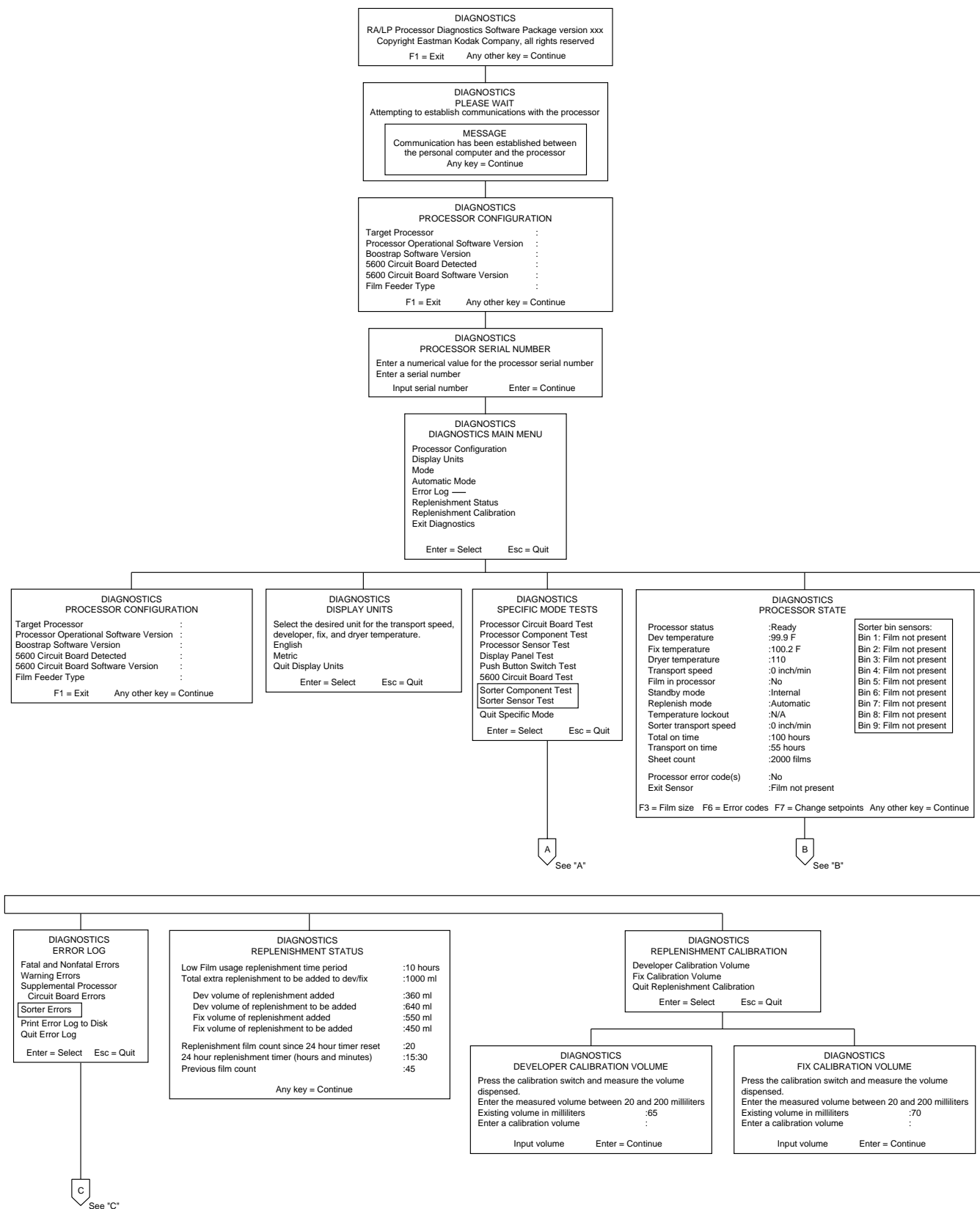
### Installing the Diagnostics onto the LAPTOP COMPUTER

- [1] Move the POWER SWITCH on the LAPTOP COMPUTER to the “ON” position.
  - [2] Insert the DIAGNOSTICS DISK into the A DRIVE.
  - [3] At the “C” prompt, type: **A:RA\_INST**
  - [4] Press [Enter].
  - [5] Wait for the LAPTOP COMPUTER to display the “DIAGNOSTICS” version and copyright screen.
  - [6] Remove the DIAGNOSTICS DISK from the A DRIVE.
- 

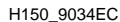
### Operating the Diagnostics

- [1] Energize the PROCESSOR.
- [2] Allow the PROCESSOR to operate for a minimum of 10 seconds.
- [3] If you are operating the diagnostics from the HARD DRIVE,
  - a. At the “C:>” prompt, type: **RA**
  - b. Press [Enter].
- [4] If you are operating the diagnostics from the A DRIVE,
  - a. Insert the DIAGNOSTICS DISK into the A DRIVE.
  - b. At the “C:>” prompt, type: **a:**
  - c. Press [Enter].
  - d. At the “A:>” prompt, type: **diag**
  - e. Press [Enter].
- [5] Continue through the diagnostics by following the instructions that the LAPTOP COMPUTER displays. See “Flowcharts of the Diagnostics” on Page 7.

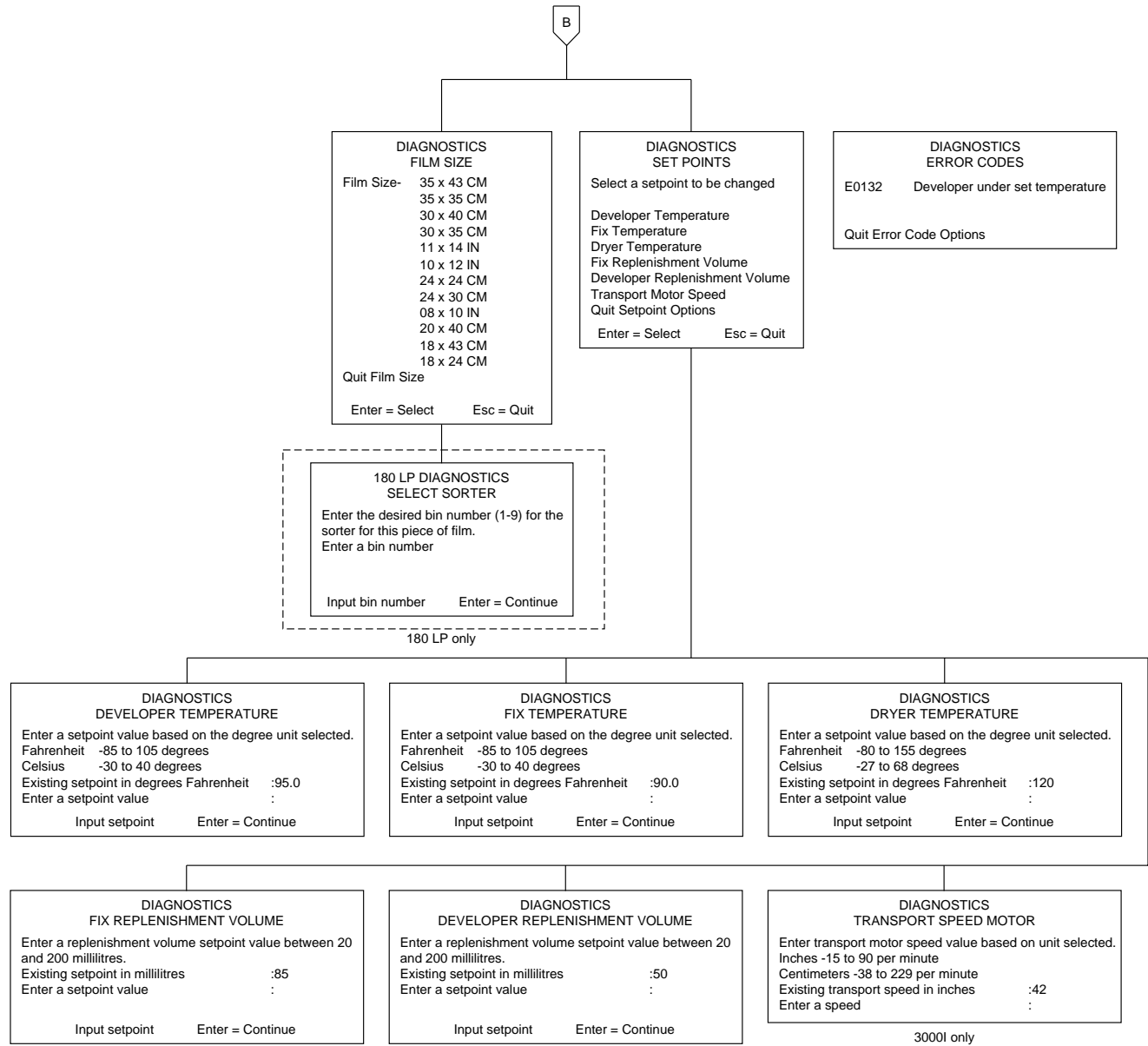
# Flowcharts of the Diagnostics



H150\_9035EC







C

DIAGNOSTICS FATAL AND NONFATAL ERRORS					
CODE	DESCRIPTION	COUNT	CODE	DESCRIPTION	COUNT
E001	5000 Circuit Board Error	0	E037	Loss of dev. heating	0
E002	Dryer over temperature	0	E038	Loss of dev. cooling	0
E003	Loss of film acc. link	0	E039	Loss of fix heating	0
E004	Inoperative transport	0	E040	Inoperative dryer	0
E005	Open dryer overtemp	0	E041	Loss of transport speed	0
E006	Initialization Error	0	E042	Loss access. data link	0
E007	Dev. therm failure	0	E043	RAM Battery failure	0
E008	Fix therm failure	0	E044	Display RAM error fail.	0
E009	Dryer therm failure	0	E045	Display data link error	0
E010	A to D failure	0			
E013	Level Sense failure	0			
E032	Dev. tank fill error	0			
E033	Fix tank fill error	0			
E034	Unable to det. dev. tmp.	0			
E035	Unable to det. fix tmp.	0			

Enter error code number to be cleared:  
Input error code number A = clear all error codes  
Enter = Continue

DIAGNOSTICS WARNING ERRORS					
CODE	DESCRIPTION	COUNT	CODE	DESCRIPTION	COUNT
E128	Processor not in place	0	E138	Invalid Film Accum. data	0
E129	Tanks are being filled	0	E139	Exit Sensor warning	1
E130	Replenish, pumps disabled	0	E141	Low Dev. tank error	0
E132	Dev. under set tmp.	2	E142	Low Fix tank error	1
E133	Dev. over set tmp.	0			
E134	Dryer under set tmp.	3			
E137	Film Accum. LED warning	N/A			

Enter error code number to be cleared:  
Input error code number      A = clear all error codes      Enter = Continue

DIAGNOSTICS SUPPLEMENTAL PROCESSOR CIRCUIT BOARD ERRORS		
CODE	DESCRIPTION	COUNT
E064	Illegal opcode error	N/A
E065	Watchdog timer error	N/A
E066	Slow clock error	N/A
The following errors constitute the causes of the E001 Processor circuit board error.		
E067	RAM error	0
E068	I/O error	0
E069	Undefined	N/A
E070	Bootstrap checksum error	N/A

Enter error code number to be cleared:  
Input error code number      A = clear all error codes      Enter = Continue

DIAGNOSTICS ERROR LOG	
<p>PRINT ERROR LOG TO DISK</p> <p>The error log have been printed to a file called errlog.bd. If the file already exists the new log data will be appended to the log data in the existing file.</p> <p>Any key = Continue</p>	
Enter = Select	Esc = Quit

180 LP DIAGNOSTICS SORTER ERRORS					
CODE	DESCRIPTION	COUNT	CODE	DESCRIPTION	COUNT
E080	Bin assembly not in place		E104	Jam at bin 4	
E081	Film tray not in place		E105	Jam at bin 5	
E082	180 LP speed out of range		E106	Jam at bin 6	
E083	Inoperative transport		E107	Jam at bin 7	
E091	Film not sensed, bin 1		E108	Jam at bin 8	
E092	Film not sensed, bin 2		E109	Jam at bin 9	
E093	Film not sensed, bin 3		E111	Unexpected film, bin 1	
E094	Film not sensed, bin 4		E112	Unexpected film, bin 2	
E095	Film not sensed, bin 5		E113	Unexpected film, bin 3	
E096	Film not sensed, bin 6		E114	Unexpected film, bin 4	
E097	Film not sensed, bin 7		E115	Unexpected film, bin 5	
E098	Film not sensed, bin 8		E116	Unexpected film, bin 6	
E099	Film not sensed, bin 9		E117	Unexpected film, bin 7	
E101	Jam at bin 1		E118	Unexpected film, bin 8	
E102	Jam at bin 2		E119	Unexpected film, bin 9	
E103	Jam at bin 3				

Enter error code number to be cleared:  
Input error code number      A = clear all error codes      Enter = Continue

180 LP only

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**Publication History**

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